



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|------------------------|----------------------|------------------|
| 10/073,931 | 02/14/2002 | Bharat Tarachand Doshi | Doshi 52-2-17-18-1-1 | 5324 |

32498 7590 10/04/2006

CAPITOL PATENT & TRADEMARK LAW FIRM, PLLC
ATTN: JOHN CURTIN
P.O. BOX 1995
VIENNA, VA 22183

EXAMINER

LESTER, EVELYN A

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/073,931 | DOSHI ET AL. | |
| | Examiner | Art Unit | |
| | Evelyn A. Lester | 2873 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7-27-06 has been entered.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The amendments to claims 1-15 as well as new claims 16-18, currently contain new matter.

With respect to claims 1, 6, and 11, specifically, there is insufficient disclosure for the claims to recite that the optical switch receives from "Ultra-Long Haul (URL)" optical signals. The Applicant makes it quite clear that the URL's are "in the planning stages or just being built" at the time of the invention. Therefore there is no indication that the Applicant had possession of the claimed invention as currently recited. Please note the specification at paragraphs [0002] to [0010]. Further, the "processing units" are not originally disclosed as "non-dedicated." Therefore, this too is considered to be new matter in claims 1, 6 and 11. If the Applicant would note in the specification that it is the optical links which are not dedicated, paragraph [0021]. The processing units are what they are, as in "dedicated" to a particular process or function. If this is not true, than claims 2-5, 7-10 and 12-18 are indefinite.

With respect to claims 16-18, there is no original disclosure for the subject matter of claims 16-18, specifically the types of processing units recited therein. There is also no written description which provides what these elements are and/or what they do.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 16-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to new claims 16-18, it is unclear what the group elements of "gigabit Ethernet", "2R unit", a "3R unit", a "SDL unit" or a "SONET/SDH unit" actually is.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4-6, 9-11, 14 and 15, as far as these claims are understood, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Fee et al (U.S. patent 5,726,788).

Fee et al disclose the claimed invention of a connection device or router, and the method for providing an optical, service-enabled connection, comprising one or more processing units (f1-f7) and an optical switch (308) for receiving “non-processed” optical signals and to connect at least one of the units to one or more optical signals based on a characteristic of each signal.

With respect to claims 4, 5, 9, 11 and 14, please note Figures 3 and 7, and their accompanying text, especially at column 4, line 30 to column 5, line 19, as well as column 5, line 64 to column 6, line 7; column 7, lines 1-5; lines 24-32 and lines 56-63; and column 8, lines 13-39.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al (U.S. patent 5,726,788) in view of Wong et al (U.S. patent 6,624,927 B1).

Fee et al disclose the claimed invention as described above, except for explicitly including various specific processing units, such as a Raman pump. Fee et al does teach various examples of processing units, in a "non-exclusive representative list," as noted at column 4, line 46 to column 5, line 10. Fee et al further teaches in that non-exclusive list the use of an amplifier (col. 4, lines 49-50) and/or pump insertion (col. 4, lines 58-59) processing units, as part of necessary signal processing functions. Wong et al teaches that it is well known to utilize a Raman pump for the purpose of amplifying optical signals in an optical communications network, so that the power of the signals is maintained at a constant level, thereby avoiding signal degradation due to lost signal power. Wong et al further teaches that various Raman pumping arrangement may be used to pump any suitable optical fiber communications system, such as fiber in optical network equipment including add/drop modules or optical switches (Wong et al at col. 3, lines 49-59). Therefore, it would have been well known to one of ordinary skill in the art to utilize the well known Raman pump of Wong et al for the purpose of amplifying

optical signals and/or pump insertion, thereby providing necessary signal processing functions as taught by Fee et al. Please also especially note Fee et al at column 2, line 33 to column 3, line 16.

6. Claims 3, 8 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al (U.S. patent 5,726,788) in view of Sharma et al (6,331,906 B1).

Fee et al disclose the claimed invention as described above, except for explicitly including various specific processing units, such as an optical-electrical-optical regenerator. Fee et al does teach various examples of processing units, in a "non-exclusive representative list," as noted at column 4, line 46 to column 5, line 10. Fee et al further teaches in that non-exclusive list the use of a modulation reshaper and the need for a regenerating process operation (note col. 4, lines 5-17), as part of necessary signal processing functions. Sharma et al teaches that it is well known to utilize an optical-electrical-optical regenerator for the purpose of reshaping optical signals in an optical communications network through techniques for restoration of network services in the event of a failed fiber link (e.g. a break in a fiber or a failure of an active element such as a fiber amplifier) and the use of optical switching to affect such restoration (note Sharma et al at col. 1, lines 53-58). Therefore, it would have been well known to one of ordinary skill in the art to utilize the well known optical-electrical-optical regenerator of Sharma et al for the purpose of reshaping optical signals and affecting signal restoration, thereby providing necessary signal processing functions as taught by Fee et al. Please also especially note Fee et al at column 2, line 33 to column 3, line 16.

No Allowable Subject Matter

7. No allowable subject matter can be indicated at this time, due to the indefiniteness and new matter rejections of claims 16-18.

Response to Arguments

8. Applicant's arguments filed 7-27-06 have been fully considered but they are not persuasive.

The Applicant's arguments that the prior art to Fee et al does not teach or suggest the a connection device that comprises an optical switch that receives ULR optical signals is not well received, in light of the fact that the Applicant's original disclosure does not teach or suggest such a thing either. Please note the new matter rejection above. However, Fee et al's claimed invention would appear to work well within the an URL, because it addresses the need for keeping the signal strong, as well as network indications at column 1, lines 49-61.

With respect to Fee et al not teaching or suggesting the "non-dedicated" processing units," please note the indefinite rejection above. However, should the Applicant mean that the processing units or functions of Fee et al can not handle any optical signal, than please note for example the discussion of Figures 3 and 6, with respect to the controller, at column 6, lines 8-62 and column 7, lines 19+, which describes that the functions operate in the same manner as the Applicant's invention,

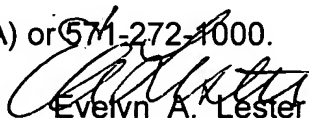
wherein intelligence and flexibility to the processing operations are performed upon the optical signal.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (571) 272-2332. The examiner can normally be reached on M-F, subject to an increased flex schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Evelyn A. Lester
Primary Examiner
Art Unit 2873